

R E M A R K S

Claims 15 and 16, directed to a nonelected invention, have been canceled without prejudice to their presentation in a divisional application. Claims 1 and 26 have been amended in response to the rejection under 35 U.S.C. §112, second paragraph, and claims 17 and 27 have been made dependent on claim 1. Other minor revisions of claim language have been made to clarify and improve the form of the recitals, without introducing any new matter. Since this Amendment does not increase either the total number of claims or the number of independent claims, no additional fee is necessary.

Claims 1 (optical information recording medium; independent); 2 - 14, 17 - 25 and 27 - 32 (dependent on 1); and 26 (method of manufacture; independent) are in the application. No claim has been allowed.

Information Disclosure Statements

Referring first to numbered section 3 on p. 2 of the Office Action, applicants respectfully submit that neither the Rules governing the duty of disclosure and information disclosure statements (37 C.F.R. §§1.56, 1.97 and 1.98) nor the decisional authority cited by the Examiner require an applicant to identify "why the cited reference is pertinent including relevant portions of the document cited." Applicants believe that the Information Disclosure Statements filed on April 11, October 21 and November 13, 2002, and on April 21 and June 26, 2003, comply fully with 37 C.F.R. §§1.97 and 1.98 and thereby satisfy the duty of disclosure specified in 37 C.F.R. §1.56. Insofar as *Penn Yan Boats, Inc.* v.

Sea Lark Boats, Inc., 175 U.S.P.Q. 260 (D.C.S.Fla. 1972) may be read to add to the requirements of the current rules in stating that a particular patentee "had a clear obligation to call the Wollard patent to the attention of the Patent Office in a proper fashion and to attempt to patentably distinguish his claimed invention from the disclosure of the Wollard patent," *Id.* at 272, applicants submit that the cited District Court decision is not binding precedent and should not be extended beyond its particular facts, which included "two deliberate misrepresentations," *Id.* at 271, viz., a complete failure to disclose one "most pertinent patent" and an attempt "to bury the Wollard patent in a long list of allegedly old prior art patents" by mischaracterizing it as having been found in a preliminary search when it had actually issued at a significantly later date, *Id.* at 272.

In brief, while applicants agree that there is "a clear obligation to call" pertinent references "to the attention of the Patent Office in a proper fashion," they believe that they have done so, under 37 C.F.R. §1.56, by complying with the disclosure requirements of §§1.97 and 1.98, which do not include a statement of "why the cited reference is pertinent" or an identification of "relevant portions of the document cited." See M.P.E.P. §609 subsection III A(3).

This being said, applicants offer the following comments on the items of information cited in their Information Disclosure Statements:

The five Information Disclosure Statements heretofore submitted cited a total of 74 items. One of these, the single "Other Prior Art" document cited on p. 6 of the Form PTO-1449 filed April 11, 2002, was an English abstract of a Japanese

patent document separately cited on the same sheet; and all six items cited in and submitted with the Form PTO-1449 filed November 13, 2002, were full English translations of six "Other Prior Art" documents in Japanese that were cited in and submitted with the Form PTO-1449 filed October 21, 2002, as explained in the text portions of these Information Disclosure Statements. Thus, the actual total number of separate items cited in and submitted with the five Information Disclosure Statements was 67, not "approximately 100."

All 30 of the items cited in and submitted with the Information Disclosure Statement filed April 11, 2002, and all nine of the "Other Prior Art" documents cited in and submitted with the Information Disclosure Statement filed October 21, 2002, were separately cited and discussed in the "Background" portion of applicants' specification, at pp. 4-18. It is believed that the discussion in the specification should serve to clarify the purport of these 39 citations.

All six of the items cited in and submitted with the Forms PTO-1449 and PTO/SB/08A respectively filed April 21 and June 26, 2003, were cited in search reports of the European Patent Office in applicants' counterpart European patent application; copies of those search reports were submitted with the same Information Disclosure Statements and should serve to provide concise explanations of relevance of the six items just mentioned. M.P.E.P. §609 subsection III A(3).

The remaining 22 items, all cited in and submitted with the Form PTO-1449 filed October 21, 2002, are 11 U.S. patents and 11 U.S. patent applications (claims, abstract, drawings only) of applicants' corporate assignee. Some of these may be grouped in "families" as follows:

1. U.S. patents Nos. 5,785,828; 6,127,016; 6,280,684; and U.S. application No. 09/795,637 (now U.S. patent No. 6,503,592) are all related as parent ('828) and continuing applications.
2. U.S. patents Nos. 5,736,657 and 6,319,368 are related as parent and continuing applications, and are also related to EP 0 735 158 cited in the Information Disclosure Statement filed June 26, 2003 (see the Annex to the European Search Report thereto attached).
3. U.S. patents Nos. 6,177,167 and 6,391,417 are related as parent and continuing applications.
4. U.S. patent No. 5,948,496 is related to EP 0 828 245 cited in the Information Disclosure Statement filed June 26, 2003 (see the aforementioned Annex).

In connection with the foregoing review of the cited items of information, a search of the 11 U.S. patent applications cited on the Form PTO-1449 filed October 21, 2002, has been made on the website of the United States Patent and Trademark Office. From this it has been determined that U.S. patents have issued on six of the 11 applications, and another has been published. For assured compliance with the duty of disclosure, the six patents and one publication are cited in and submitted with a further Information Disclosure Statement filed concurrently herewith, but it is to be understood that these are the same items as seven of the 11 applications previously cited.

Rejection under 35 U.S.C. §112, Second Paragraph

In response to the rejection of claims 1 - 14 under 35 U.S.C. §112, second paragraph, as indefinite, claim 1 has been amended to recite that the stored information is recorded onto the substrate. This recital is expressly supported by the disclosure of the specification at paragraph [0161]¹ which was cited in the Office Action. It is believed that the amendment cures any indefiniteness in the original claim, since information recorded onto the substrate cannot be inadvertently erased. Consequently, the amendment is submitted to overcome the §112 rejection with respect to claim 1, and also with respect to claims 2 - 14, which are understood to have been rejected on this ground only by virtue of their dependence on claim 1.

With reference to the rejection of claim 26 under §112, second paragraph, as indefinite in failing to specify that the deposition is a sputter deposition and that the heating is from the deposition process, it may initially be noted that the disclosure of applicants' specification is not limited to sputter deposition, see paragraph [0097], and that the step of raising the substrate temperature at a rate within a specified range is not limited as to the source of the heat, see paragraph [0059]. Claim 26 has been amended herein to recite the formation of the recording layer as a positive process step, limited by the rate of heating the substrate; it is not seen that this amended recital is in any respect indefinite, or for that matter that it could be rejected as broader than the disclosure (under §112,

¹Reference is made to the numbered paragraphs in the above-identified application in its published form, Pub. No. US 2002/0110063 A1.

first paragraph). Therefore, it is submitted that claim 26 as amended satisfies the requirements of 35 U.S.C. §112.

Rejection of Claims 1 - 14 under 35 U.S.C. §103(a)

Claims 1 - 14 have been rejected under 35 U.S.C. §103(a) as unpatentable (1) over Ando et al. '543; (2) over Hisotomi et al. WO 99/38168; and (3) over Yamada et al. EP 1280142 in view of Ando et al. '543 or Hisotomi et al. WO 99/38168.

Yamada et al. EP 1280142 is not a reference against the present application. Its effective date as a reference is its publication date, January 29, 2003, which is later than the September 28, 2001, U.S. filing date of the present application. Yamada et al. EP 1280142 was cited and submitted by applicants in their Information Disclosure Statement filed June 26, 2003, as one of a number of items listed by the European Patent Office in a search report in applicants' counterpart European Patent Application; but whatever its status may be against the latter European Application, it is not a reference, under U.S. law, against the present case. Therefore, no claim of the present application is subject to rejection on any ground that applies Yamada et al. EP 1280142 either alone or in combination with other citations.

Ando et al. '543 is cited as disclosing phase change optical recording media (col. 8, lines 53-58) with a lead-in area containing embossed information including linear velocity upon recording and erasure (col. 10, lines 60-64). The Office Action asserts that it would have been obvious to include the linear velocity for recording information in the lead-in area of the optical disc described in Ando et al. '543 at col. 8, lines 53-

58. Be that as it may, however, Ando et al. '543 is not seen to disclose any disc wherein "the dislocation linear velocity V satisfies a relation $V \geq V_r \times 0.85$ or $V \geq V_h \times 0.85$," as recited in present claim 1. This recital defines a property of the disc, and as such is entitled to weight in determining patentability. As applicants' specification explains, e.g. in paragraphs [0129]-[0135], the dislocation linear velocity of a disc is dependent on a variety of factors and processing conditions, including factors and conditions that are not specified in Ando et al. '543; hence, the property defined by the quoted recital of claim 1 is not necessarily inherent in Ando et al. '543. Moreover, there is nothing in Ando et al. '543 to suggest even the desirability of the property defined by the quoted recital.

It follows that the provision of a disc wherein "the dislocation linear velocity V satisfies a relation $V \geq V_r \times 0.85$ or $V \geq V_h \times 0.85$," as recited in applicants' claim 1, would not have been obvious to a person of ordinary skill in the art from Ando et al. '543, and that the quoted recital distinguishes claim 1 patentably thereover.

Hisotomi et al. WO 99/38168 is likewise cited as disclosing "GeTeSb phase change optical recording media" in which "The lead-in area is disclosed as containing embossed information including linear velocity upon recording and erasure." Again, the Office Action asserts that it would have been obvious to include the linear velocity for recording information in the lead-in area of the optical disc.

Claim 1 is submitted to distinguish patentably over Hisotomi et al. WO 99/38168 in the same manner, and for the same reasons, that it distinguishes over Ando et al. '543. That is, Hisotomi et al. WO 99/38168 does not disclose, either expressly or inherently, and does not suggest or make obvious, a disc wherein

"the dislocation linear velocity V satisfies a relation $V \geq V_r \times 0.85$ or $V \geq V_h \times 0.85$," as recited in applicants' claim 1.

Claims 2 - 14 are submitted to distinguish patentably over Ando et al. '543 and Hisotomi et al. WO 99/38168 by virtue of their dependence on claim 1.

Rejection of Claims 17 - 25 under §§102(b) and 103(a)

Claims 17 - 25 have been rejected under 35 U.S.C. §102(b) as anticipated by any one of Ide et al. EP 735158, Yamada et al. EP 1058249, Yamada et al. EP 1280142, and Yamada et al. JP11-115313, and under 35 U.S.C. §103(a) as unpatentable over either of Yamada et al. EP 1280142 (alone or in view of Ando et al. '543 or Hisotomi et al. WO 99/38168) and Nobukuni et al. EP 1056077.

As explained above, Yamada et al. EP 1280142 is not citable as a reference against the present application under either §102 or §103. It is therefore unnecessary to discuss any ground of rejection based on this publication.

Claim 17, on which claims 18 - 25 are dependent, has itself been made dependent on claim 1 by the present Amendment. Consequently, claims 17 - 25 now incorporate by reference all the limitations of claim 1. 35 U.S.C. §112.

None of Ide et al. EP 735158, Yamada et al. EP 1058249, Yamada et al. JP11-115313, and Nobukuni et al. EP 1056077 discloses, suggests or makes obvious the combination of features defined in present claim 1. This is implicitly acknowledged by the fact that the Office Action did not apply any of them against claim 1, although it did apply another citation (the non-reference Yamada et al. EP 1280142) against both of claims 1 and 17. Consequently, claims 17 - 25 are submitted to distinguish

patentably over each of these references by virtue of their dependence on claim 1. Of course they also distinguish patentably over Hisotomi et al. WO 99/38168 and Ando et al. '543 in the same manner, and for the same reasons, as does claim 1.

Rejection of Claim 26 under §§102(b) and 103(a)

Claim 26 has been rejected under 35 U.S.C. §102(b) as anticipated by any one of "Yuzurihara et al. '176" (presumably Yuzurihara et al. U.S. patent No. 6,177,167, cited by applicants in an Information Disclosure Statement), Kosuda et al. '330, and Yamada et al. EP 1280142, and under 35 U.S.C. §103(a) as unpatentable over Yamada et al. EP 1280142 (alone or in view of Ando et al. '543 or Hisotomi et al. WO 99/38168).

As already explained, Yamada et al. EP 1280142 is not a reference against the present application. It is therefore unnecessary to discuss any ground of rejection based on this publication.

Yuzurihara et al. '167 does not expressly disclose heating the substrate "at a constant rate between 10°C/min and 50°C/min" as recited in claim 26; but in rejecting claim 26 on Yuzurihara et al. '167, the Examiner asserts that in example 10 of the patent, a recording layer was formed by sputtering under conditions

"similar to the conditions used in example 51 of the present specification. . . . The examiner is of the opinion that the language of the claims describes the heating caused by the sputter deposition process."

Of course, Yuzurihara et al. '167 example 10 does not state that "substrate temperature: starts at 25°C., and raises temperature at the rate of 30°C./min" as described in Example 51 at paragraph [0224] of applicants' specification.

Attention is respectfully directed to applicants' Comparative Example 51 at paragraph [0236] of the present specification, in which

"An optical information recording medium has been prepared exactly in the same manner as that of the Example 51, except that a film has been formed using power 850 W **without raising temperature of the substrate at the time of forming a film**" (emphasis added).

850 W, it may be noted, is the **upper** limit of power recited in claim 26.

Applicants' Comparative Example 51 makes clear that "the conditions used in example 51," apart from the heating rate specified in Example 51, do not inherently and necessarily result in any elevation of substrate temperature at the time of forming a film. Consequently, Example 10 of Yuzurihara et al. '167 does not even inherently anticipate present claim 26. As there is no suggestion of the claim 26 heating rate range in Yuzurihara et al. '167, the recital of that range distinguishes claim 26 patentably thereover.

Claim 26 distinguishes patentably in the same way over Kosuda et al. '330. Again, the Examiner relies on asserted similarities between sputtering conditions (power and argon pressure) of the Kosuda et al. '330 example and applicants'

Example 51; but again, Kosuda et al. '330 is silent as to heating (if any) of the substrate, let alone the rate of such heating, and as applicants' Comparative Example 51 demonstrates, the Example 51 conditions to which the Examiner compares Kosuda et al. '330 do not inherently or necessarily result in heating the substrate "at a constant rate between 10°C/min and 50°C/min" as claim 26 requires.

Rejection of Claims 27 - 32 under §§102(b) and 103(a)

All or some of claims 27 - 32 have been rejected under 35 U.S.C. §102(b) as anticipated by either of Yamada et al. JP 11-115313 and Nobukuni et al. EP 1056077, and under 35 U.S.C. §103(a) as unpatentable over either of Yamada et al. EP 1280142 (alone or in view of Ando et al. '543 or Hisotomi et al. WO 99/38168) and Nobukuni et al. EP 1056077.

As explained above, Yamada et al. EP 1280142 is not citable as a reference against the present application under either §102 or §103. It is therefore unnecessary to discuss any ground of rejection based on this publication.

Claim 27, on which claims 28 - 32 are dependent, has itself been made dependent on claim 1 by the present Amendment. Consequently, claims 27 - 32 now incorporate by reference all the limitations of claim 1. 35 U.S.C. §112.

Neither Yamada et al. JP 11-115313 nor Nobukuni et al. EP 1056077 discloses, suggests or makes obvious the combination of features defined in present claim 1. This is implicitly acknowledged by the fact that the Office Action did not apply either of them against claim 1, although it did apply the non-reference Yamada et al. EP 1280142 against both of claims 1 and

27. Consequently, claims 27 - 32 are submitted to distinguish patentably over each of these references by virtue of their dependence on claim 1. Of course they also distinguish patentably over Hisotomi et al. WO 99/38168 and Ando et al. '543 in the same manner, and for the same reasons, as does claim 1.

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For the foregoing reasons it is believed that this application is now in condition for allowance. Favorable action thereon is accordingly courteously requested.

Respectfully,

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I hereby certify that this paper is being deposited this date with the U.S. Postal Service as first class mail addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

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